

# Cycle Counting with XA Materials Management

How to manage the Cycle Counting Process

and enhance it with CISTECH Solutions



#### Cycle Counting

- Cycle Counting is used to verify/update quantities on hand
- It should also assist in uncovering practices and/or procedures that are preventing accurate inventory (i.e. root cause analysis & correction)
- Count a select group of items on a daily basis to validate your quantity on hand and inventory value
- Or....count selected items/locations based on a user created subset
- A properly executed Cycle Count program can eliminate the need to take a wall to wall physical inventory



#### **Process Overview**

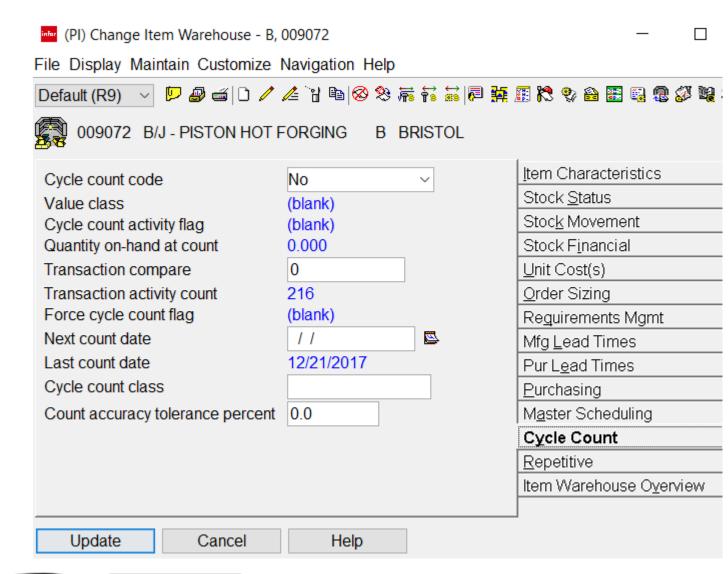
- Set the Cycle Count fields in the Item Warehouse file
- Create a Materials Management Count Group
  - Can print either a report or count tags when the group is created
  - If using CISTECH's RF or Graphical Count Entry, you would not need the paper
- Activate Next Count is an XA job that opens the count group for count entry
- Enter the count quantities
  - XA offers 'Count 1', 'Count 2' and 'Count 3' count quantities so that there is an audit trail for recounts
- Run a Variance report (optional)
- Recount out of tolerance items (optional)
- Post the count quantities
  - Creates 'PH' (Physical Inventory Adjustment) transactions in transaction history





#### Item Warehouse – Cycle Count Fields

- Cycle Count Code determines frequency of count:
  - Monthly
  - Quarterly
  - Semi-Annually
  - On 'Date Next Count'
- Value Class (from Item Revision/Master) is the field XA designates for 'ABC' code
- Transaction Compare will select the item for count when the <u>number</u> of transactions is greater than the 'Transaction Compare' quantity
- Force Cycle Count flag is an XA set field. It is set when an item goes negative after it's last count
- Next Count Date is manually entered
- Cycle Count Class can be used in subsets
- Count Accuracy Tolerance Percent
  - XA compares the count quantity to the cutoff quantity and determines the percent difference. If the Percent is greater than this number, the item will need to be counted again.
  - You cannot update the on hand with the count if it is out of tolerance







# Creating a Count Group

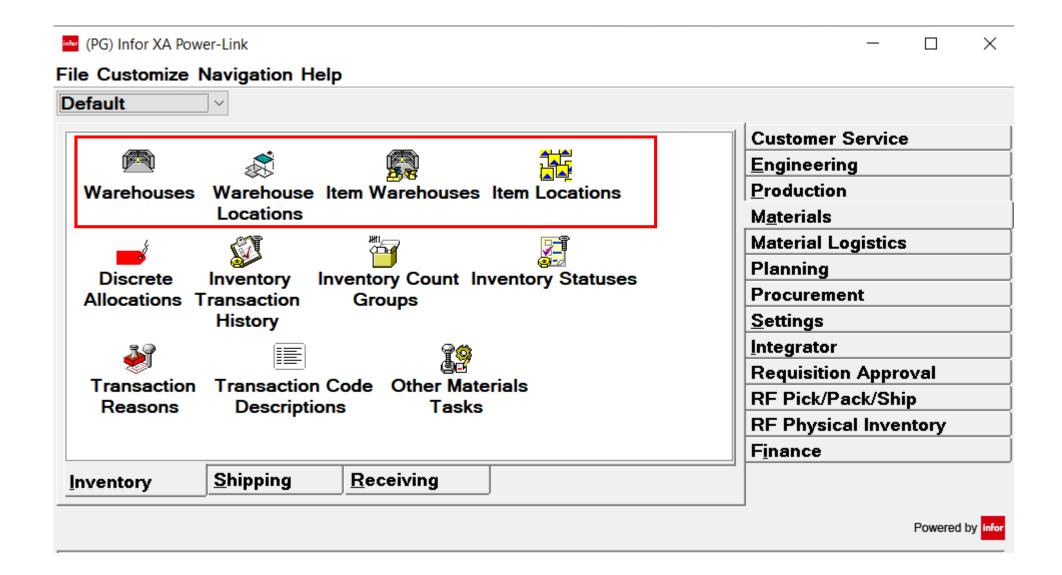
#### Cycle Count Selection Options

- XA provides several ways to create a Cycle Count group:
  - Warehouse
    - Count all items in the warehouse (i.e. Physical Inventory)
  - Item Warehouse
    - Count all locations for groups of items in the warehouse
  - Warehouse Locations
    - Count all items in selected locations
  - Item Locations
    - Count selected items in specific locations



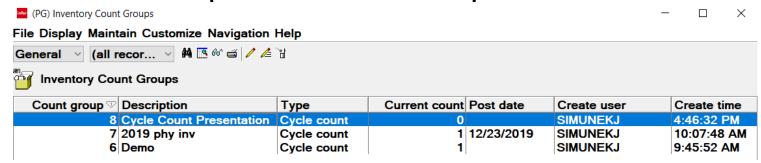


#### Create Count Group



#### Create Count Group

- From 'File' then 'Host Job' you can create a Count Group from the following objects:
  - Item Warehouse
  - Item Location
  - Warehouse Location
  - Warehouse
    - Warehouse is the only option that will select all items with Item Balance/warehouse records regardless of quantity on hand (i.e. will also select zero quantity items for count)
- Creates a 'Count Group' with the description that was entered:

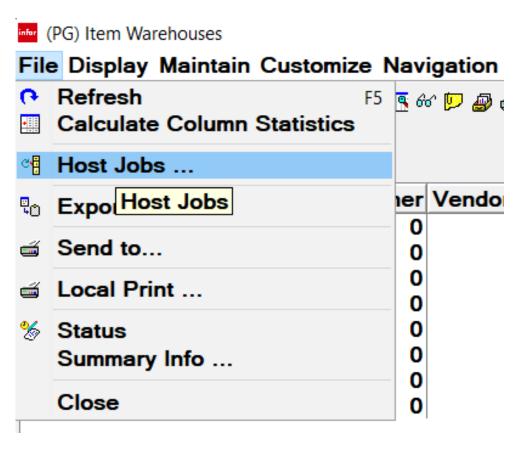




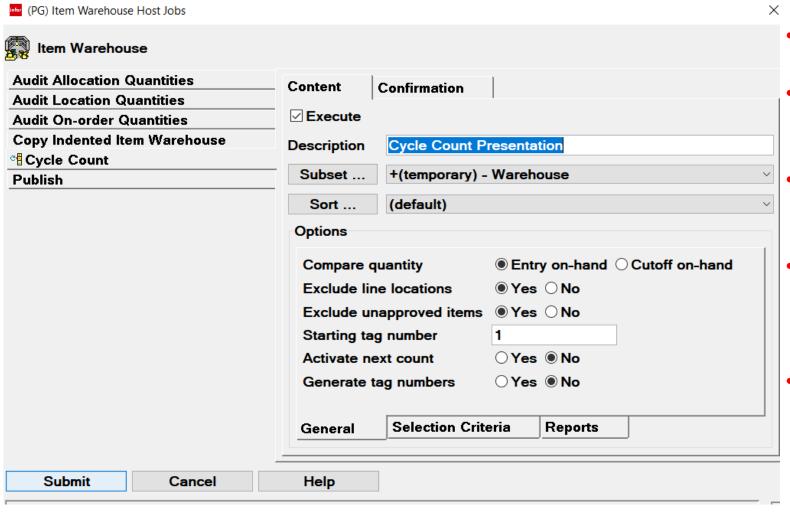


#### Create Count Group

The process for creating a count group is the same regardless of which of the 4 objects you're using to select items

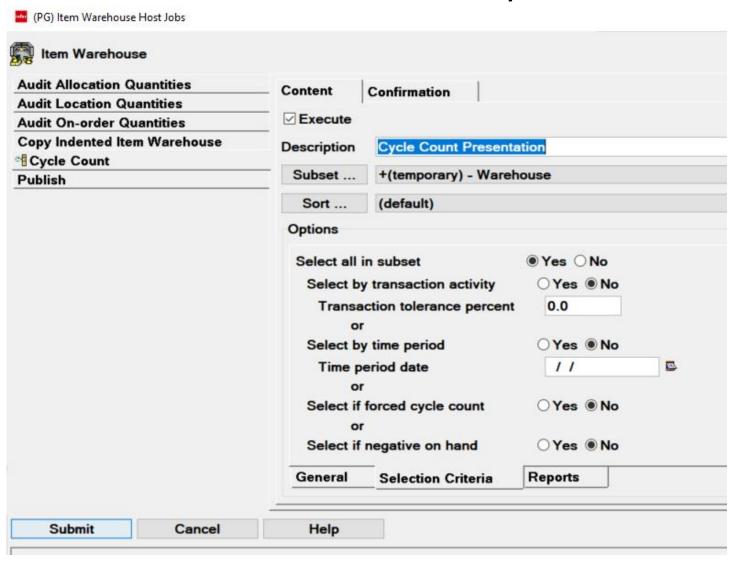


#### Create Count Group – General Card



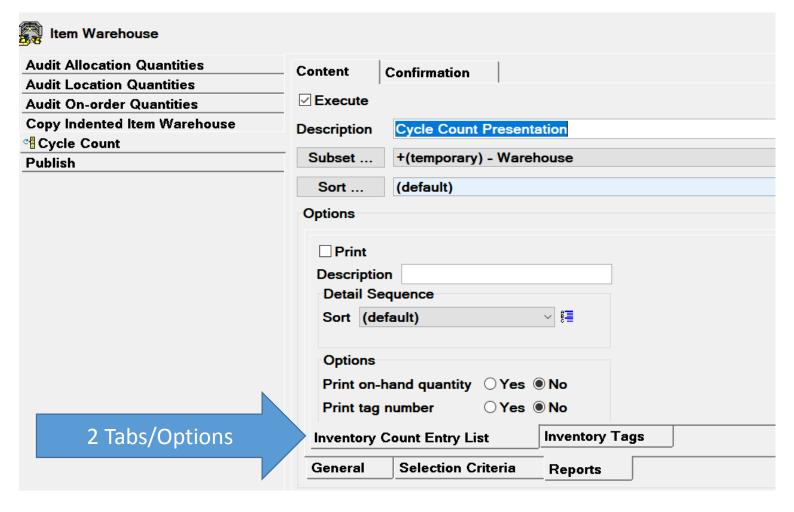
- Description: Will be the description of the Count Group
- Compare Qty: Freezes the location quantity either at Count Entry or when 'Activate Next Count' is run
- Exclude:
  - Repetitive Line Locations
  - Items waiting QC insp
- Activate Next Count: Opens the group for count entry. Can also be run from the 'Inventory Count Group' Maintain menu
- Generate Tag Numbers: Assigns tag number to each item/location to be counted

#### Create Count Group - Selection Criterial Card



- Select All in Subset: If you created a subset and only want to count the items/locations in the subset, leave as 'Yes'. To use the Cycle Count Code, check 'No' and then 'Yes' to 'Select by Time Period'
- Select by Transaction Activity: If you entered a transaction compare quantity in the Item Warehouse
- Transaction Tolerance Percent: If using Transaction Activity, percentage that is 'close enough' to select the item for count
- Select by Time Period: Uses Cycle Count Code selection
- Select if forced Cycle Count: Selects items that have a 'Force Count' flag in Item Warehouse
- Select if negative on hand: Select if the on hand is negative

#### Create Count Group – Reports Card



- Can print either a report to record count quantities or individual tags
- Both have options to print existing quantity on hand and tag numbers

## Sample Count Report

COUNT GROUP- Cycle Count	Preser		INVENTORY COUNT	ENTRY LIST	DATE 4/ OPER SIM		.6:46:35 PAGE 2 AXTG641
Count Entry							
WHSE ITEM	NUMBER	R DESCRIPTION			COUNTED BY	COUNT DATE	COUNTED QUANTITY U
LOCATION	LINE	BATCH/LOT FIFO DATE		ASSIGNED TO			
1 1104		Bluetooth Mouse					
0103	N	8/02/19					
1 1102		ChromeBook (S/N)					
0105	N	6/09/19					
1 1102		ChromeBook (S/N)					
0201	N	9/11/19					
1 1103		Apple MacBook (S/N)	)				
0201	N	6/09/19					
1 1104		Bluetooth Mouse					
0201	N	6/09/19					
1 1105		Ergonomic Keyboard					
0202	N	6/09/19					
1 1106		Speakers					
0202	N	6/09/19					

#### Sample Count Tag

```
DATE 4/06/20 TIME 16.46.36

COUNT GROUP- 8 Cycle Count Presentation
ITEM NUMBER- 1101 COUNT NUMBER- 0
Laptop WAREHOUSE- 1
LOCATION BATCH/LOT FIFO DATE
SHIP 8/09/19

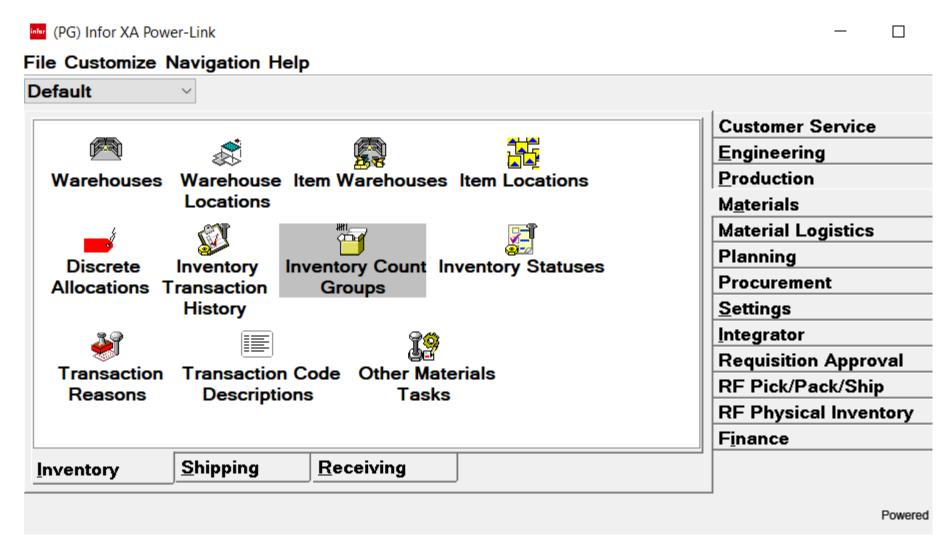
COUNTED BY DATE COUNTED QTY COUNTED U/M
EA
```

## Enter Count Quantities

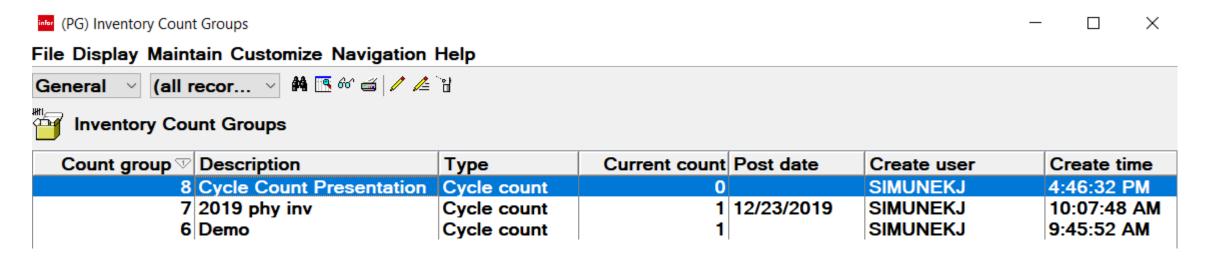
Options to enter your count quantities:

- Manually in PowerLink
- Using RF devices
- Using Tablets

#### Inventory Count Groups



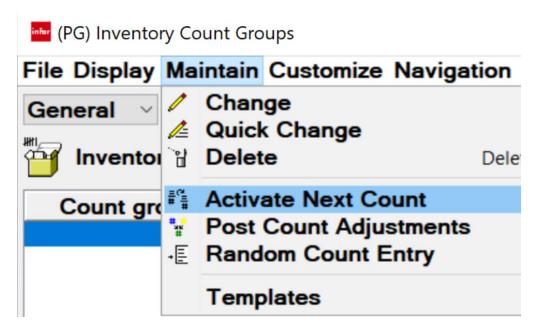
#### Count Groups



- The Count Group Description that was entered when the count group will be displayed
- HINT: I change the default sort from 'Ascending' to 'Descending' so that the latest count group will be displayed at the top of the list
- Current Count:
  - 0 means that the 'Activate Next Count' job (from the Maintenance menu) has not been run
  - Can have up to 3 counts for the same items in a group. The latest count is what will be used to update XA
- Double Click on the count group to see the items

#### Activate Next Count

• If the 'Count Group' is zero, click on 'Maintain' and then select 'Activate Next Count' to allow count entry:







#### Counting Items

- Paper (Report or Tag)
  - Locate the Item & Location, count the part, write the count quantity on the document
- RF Devices (Green Screen Emulation)
  - Enter the count group number
  - First item/location will be displayed
  - Key in the count quantity which will update the count group
- Tablets
  - Select the count group
  - Verify the item/location
  - Enter the count quantity which will update the count group





(PG) Inventory Count Items - 8 Cycle Count Presentation

#### File Display Maintain Customize Navigation Help

Sequenti... ∨ \*(tempora... ∨ 🚧 🕦 જ 📹 🗅 🧪 🖺 🥞 🗞 🥦 🙉 🙉 💰



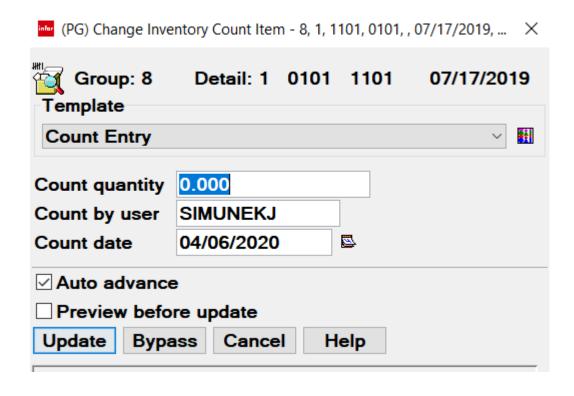
#### 8 Cycle Count Presentation

Tag	ltem 🕸	Whs 🗅	Location 🕸	Batch/lot	FIFO	Count quantity	Count by user	Count date
	1101	1	0101		07/17/2019	0.000		
	1105	1	0101		01/14/2020	0.000		
	1107	1	0101	1235	09/11/2019	0.000		
	1101	1	0102		06/09/2019	0.000		
	1103	1	0102		07/17/2019	0.000		
	1104	1	0103		08/02/2019	0.000		
	1102	1	0105		06/09/2019	0.000		
	1102	1	0201		09/11/2019	0.000		
	1103	1	0201		06/09/2019	0.000		
	1104	1	0201		06/09/2019	0.000		
	1105	1	0202		06/09/2019	0.000		
	1106	1	0202		06/09/2019	0.000		
	1107	1	0202	1234	09/11/2019	0.000		
	1107	1	0202	1236	09/11/2019	0.000		
	1106	1	0204		09/11/2019	0.000		
	1106-S	1	0204		09/19/2019	0.000		
	1107	1	0301	1237	09/11/2019	0.000		

- Count Entry uses a process similar to Quick Change in that the view that is used determines the fields that are displayed on the card
- Every count will require a 'Count by User' and 'Count Date'
  - To avoid having to enter this each time, create a Change Template with 'Count by User' set to 'Current User' and 'Count Date' to 'Current Date'
  - Use Preferences to make this the default Change Template
- Single Click on the first item in the count group and use the 'Sequential Count Entry' button to begin entering count quantities

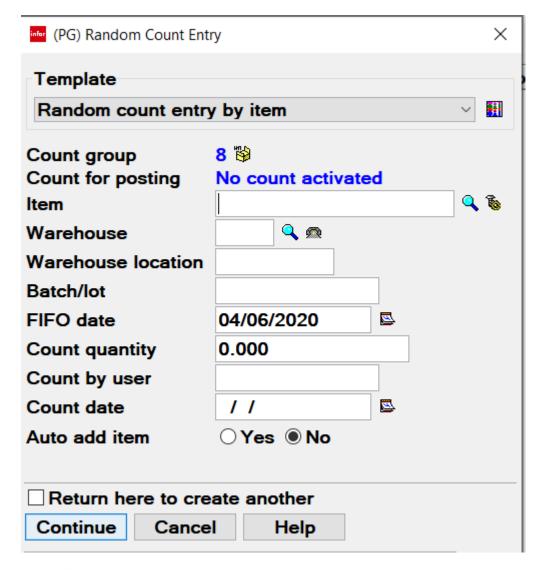






- Location, Item, Batch/lot, FIFO date are displayed at the top of the card
- Cursor is in the 'Count Quantity' field to enter the counted quantity
- NOTE that 'Auto Advance' is checked, which will bring the next item in the count group up automatically
- 'Count by User' and 'Count Date' are automatically populated by the Change Template

 If an item needs to be manually entered into the count group, use 'Random Count Entry' from the 'Maintain' menu







#### CISTECH Alternative Count Entry

- Either enter counts on an RF device (i.e. Intermec Scanner) or tablet (i.e. Google Chromebook, iPad, etc.)
  - Employee Master in PM&C is used to store badge numbers of counters
- Prerequisites:
  - Production Monitoring and Control (PM&C)
  - Robust wireless network in all areas where inventory is stored
  - Access to the internet if using tablets
- CISTECH's transaction processing enhancements do not consume an XA license





#### RF Entry

- After entering their badge number, a personalized menu will be displayed
- Only the transactions that are enabled for that badge will be on the menu

```
10:47:33
 4/07/20
JIM SMITH
Option: <u>19</u>
   IP-Planned Issue
 2 IS-Misc Issue
 3 RC-Misc Receipt
   RM-Mfg Receipt
   TW-Whse Transfer
19 CC-Cycle Count
   Inventory Inquiry
   RF Pick/Pack/Ship
22 ON-Job On
F3=Exit
```





#### RF Entry

- The counter will be prompted for the Count Group Number
  - There is a function key inquiry option to display open count groups
- Then the items in the count group will be displayed in the same sequence as on the list in PowerLink

```
11:17:21
 4/07/20
Count Group
Location:
             0101
Item: 1107
       23A EXT COMP--MPB, EPM, CBP
 B/L: 1235
Count Qty:
                     .000
F1=Next
         F2=Prev
        F5=CntStatus
F3=Rtn
```





#### RF Count Entry Updates MM Count

 As counts are entered from the RF Device, the records in the count group are being updated:

Tag Item 🕸	Whs 🛆	Location 🛆	Count quantity	Count by user
1101	1	AABBAA	100.000	SIMUNEKJ
1101	1	A1A1	55.000	SIMUNEKJ
1105	1	A1A1	73.000	SIMUNEKJ
1107	1	A1A1	14.000	SIMUNEKJ
1108	1	A1A1	800.000	SIMUNEKJ
1109	1	A1A1	67.000	SIMUNEKJ
1106	1	B0100	25.000	SIMUNEKJ
1103	1	FG00	987.000	SIMUNEKJ
1101	1	FG01	98.000	SIMUNEKJ
1103	1	FG01	8,768.000	SIMUNEKJ
1104	1	FG01	5,555.000	SIMUNEKJ
1105	1	FG01	0.000	
1106	1	FG01	0.000	
1107	1	FG01	0.000	

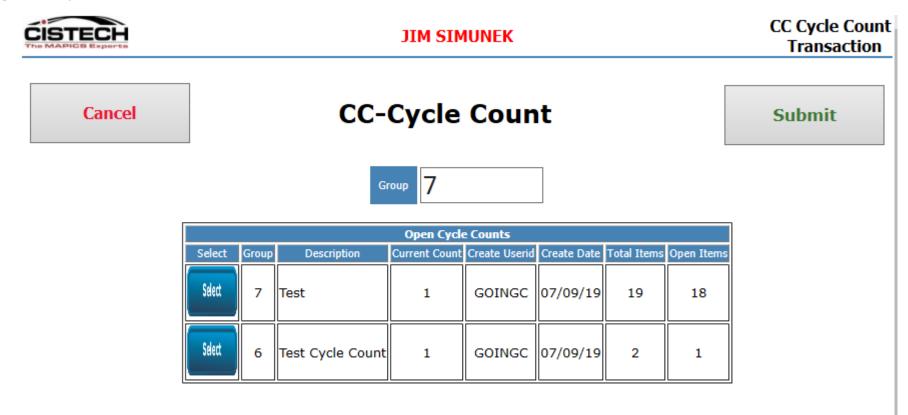
 If the difference between the count quantity and the quantity in the location is outside of the 'Count Tolerance %' (as set in the Item Warehouse record – print screen below), then the item/location will be flagged as 'out of tolerance'





#### Tablet Entry

 After entering the 'Cycle Count' (CC) option, you will be asked to select a count group:

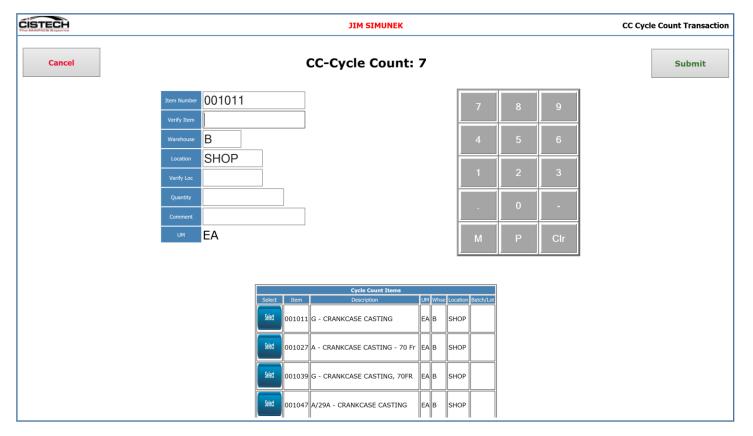






#### Count Entry (Tablet)

 Use the scanner to verify item & location and then key the count quantity using the touch screen keypad

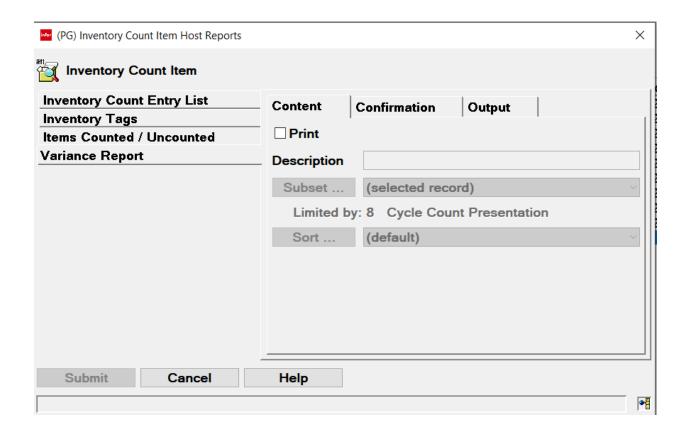






#### Print Reports

- When all counts have been entered, return to the list of items in the count group
  - To run reports, click on 'File' then 'Host Print'
- You can run the following:
  - Count sheet
  - Count Tags
  - Report of Counted/Uncounted items
  - Variance Report







## Sample Variance Report

	ORY COUNT VARIANC PARE QUANTITY – E			DATE 4/07/20 OPER SIMUNEKJ	TIME 10.19.55 PA		i670
WHSE ITEM NUMBER DESCRIPTION LOCATION BATCH/LOT FIFO DATE TOLERANC	U/M E UNIT COST	COUNT	COUNTED QTY	COMPARE QTY	QUANTITY	AMOUNT	00
1 1106-S Speakers SHIP 1/14/20	EA	1*	7.000	7.000			
1 1107 Gaming Console (Batch/l	ot) EA	1*	37.000	37.000			
SHIP 1234 9/11/19 1 1107 Gaming Console (Batch/l	ot) EA	1*	11.000	11.000			
SHIP 1235 9/13/19 1 1101 Laptop 0101 7/17/19	EA	1*	4944.000	4940.000	4.000		Υ
(W) Item exists in another count group.	REPORT TOTALS	1	4999.000	4995.000	4.000		
NUMBER OF SELECTED COUNTS OUT OF TOLERANCE	SELECTED COUNT	3 TOTALS	4999.000	4995.000	4.000		
HOUSE OF SEEDINGS SOUTH OF THE SEEDINGS	-					u	

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#### Out of Tolerance items

- After entering all your counts the first time, if items are out of tolerance, then you will need to:
  - Activate Next Count at the Count Group Level
  - For the items that are in tolerance, the count 1 quantity will be copied to count 2:

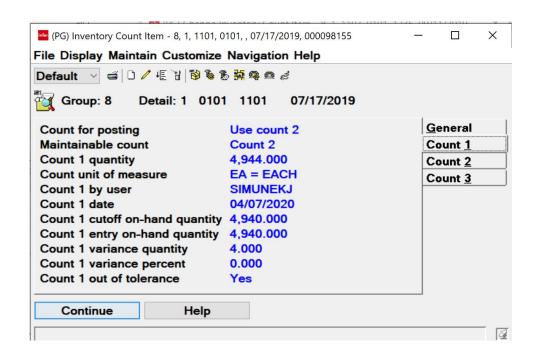
Sequenti Y *(all re	ecor Y 👭 📑	₩ <b>=</b>   D / 4E	月月春季乾燥	D ನ			
8 Cycle Count F	resentation						
ltem 🛆	Whs 4	Location 4	Batch/lot	FIFO	Count quantity	Count by user	Count date
1101	1	SHIP		08/09/2019	68.000	SIMUNEKJ	04/07/2020
1102	1	SHIP		09/13/2019	22.000	SIMUNEKJ	04/07/2020
1103	1	SHIP		08/26/2019	17.000	SIMUNEKJ	04/07/2020
1104	1	SHIP		08/09/2019	92.000	SIMUNEKJ	04/07/2020
1105	1	SHIP		07/17/2019		SIMUNEKJ	04/07/2020
1106	1	SHIP		09/11/2019	58.000	SIMUNEKJ	04/07/2020
1106-S	1	SHIP		01/14/2020	7.000	SIMUNEKJ	04/07/2020
1107	1	SHIP	1234	09/11/2019	37.000	SIMUNEKJ	04/07/2020
1107	1	SHIP	1235	09/13/2019		SIMUNEKJ	04/07/2020
1101	1	0101		07/17/2019	0.000		
1105	1	0101	-0.00	01/14/2020	0.000		
1107	1	0101	1235	09/11/2019	479.000	SIMUNEKJ	04/07/2020
1101	1	0102		06/09/2019	4,924.000	SIMUNEKJ	04/07/2020
1103	1	0102		07/17/2019	9,826.000	SIMUNEKJ	04/07/2020
1104	1	0103		08/02/2019	7,908.000	SIMUNEKJ	04/07/2020
1102	1	0105		06/09/2019	4,978.000	SIMUNEKJ	04/07/2020
1102	1	0201		09/11/2019	4,992.000	SIMUNEKJ	04/07/2020
1103	1	0201		06/09/2019	10,000.000	SIMUNEKJ	04/07/2020
1104	1	0201		06/09/2019	9,983.000	SIMUNEKJ	04/07/2020
1105	1	0202		06/09/2019	9,865.000	SIMUNEKJ	04/07/2020
1106	1	0202	1000-1000-1000	06/09/2019	10,000.000	SIMUNEKJ	04/07/2020
1107	1	0202	1234	09/11/2019	463.000	SIMUNEKJ	04/07/2020
1107	1	0202	1236	09/11/2019	500.000	SIMUNEKJ	04/07/2020
1106	1	0204		09/11/2019	11,942.000	SIMUNEKJ	04/07/2020
1106-S	1	0204		09/19/2019	10,038.000	SIMUNEKJ	04/07/2020
1107	1	0301	1237	09/11/2019	500.000	SIMUNEKJ	04/07/2020

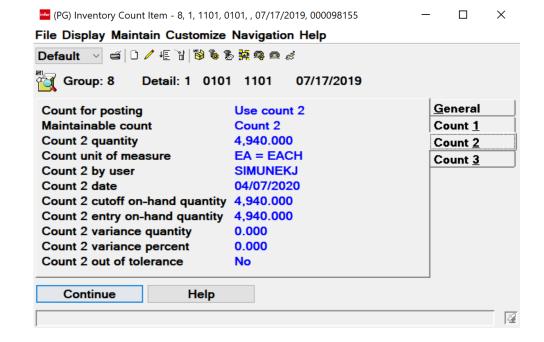




#### **View Counts**

• To view counts 1, 2 and 3 you can add them to your view or double click on a line item in the count group to display the counts on individual cards:



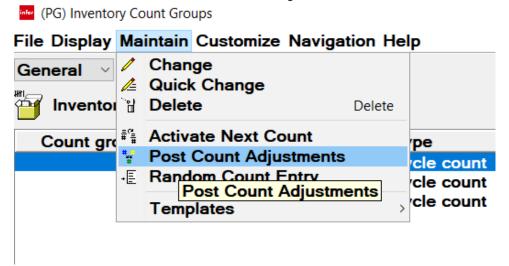






#### Update on hand balances based on count quantity

- Single click on the count group
- Click on 'Maintain' then 'Post Count Adjustments'



 You will be warned if there are items in the count group that were not counted and asked if you want to proceed





#### Results of Posting Count Adjustments

- A PH (Physical Inventory Adjustment) transaction will be created for each item counted with the quantity of the transaction being the variance between the count quantity and the cutoff quantity
  - If your company uses the General Ledger Interfaces, then a record will also be written to the INVTXN file for GL update based on the quantity of the adjustment
- The 'Date Last Count' field will be updated
- Transaction count quantity will be set to zero
- Force Cycle Count flag will be set to blank





#### Physical Inventory Dilemma

- If your company has a cycle count program utilizing the Cycle Count Code in the Item Warehouse record, a physical inventory will set the 'Date Last Count' for all items to the same date
- Cycle Count selection utilizes the 'Date Last Count' and the iSeries system date to determine if an item is due for count
- To have a representative sample of items selected for cycle count after a full physical inventory, the 'Date Last Count' field in the Item Warehouse (ITEMBL) record needs to be reset





#### CISTECH PTF

- CISTECH has created a program that is available to all that will:
  - Use the ABC code in the 'Value Class' field of the Item Master/Revision record to reset the Cycle Count Code in the Item Warehouse/Balance record
    - 'A' items will be set to CC code 1 Monthly
    - 'B' items will be set to CC code 2 Quarterly
    - 'C' items will be set to CC code 3 Semi-annually
  - Date Last Count will be reset based on the CC Code
    - The program looks at the Warehouse Master to determine which calendar should be used
    - All CC Code '1' items will be updated with a working day in the previous month. It will continue through the '1' items until all have had a new date assigned
    - Then it does the same routine for CC Code '2' items, assigning a work date in the last quarter
    - Then the CC Code '3' items, assigning a date in the last 6 months
- This will allow the CC program to continue uninterrupted





#### CISTECH PTF

- The CISTECH PTF can requested by sending an e-mail to the following address: productsupport@cistech.zendesk.com.
  - Ask for the 'Cycle Count Enhancement' in the subject line
- You will be sent instructions as to how to load the code and install the business object that will need to be created in PowerLink
- There is no charge for the program
- The program was created as part of CISTECH's RF Physical Inventory application. We pulled it out of there to create the PTF we're providing now.



#### Summary

- A daily Cycle Count program can be used to validate inventory accuracy and, when there are differences, uncover root cause as to what's making the inventory inaccurate
- XA can select all items in the warehouse over a 6 month period for cycle counting OR you can create your own subsets to select items for cycle counting
- Counts are written on paper then keyed in PowerLink unless you have the CISTECH enhancement to use either scanners or tablets

